Idaho Department of Health and Welfare

Idaho Disease
Bulletin

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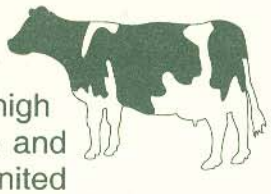
Foot-and-Mouth Disease: Information for the Clinician



You may have seen the televised images of funeral pyres piled high with smoldering cattle and swine from the United Kingdom. It is considered possible that such a scenario may occur in the United States, given the highly contagious nature of the foot-and-mouth disease (FMD) virus and the ease of international travel.

The term "hoof-and-mouth disease" is sometimes used by non-veterinarians to describe FMD in animals, but is incorrect. Because it spreads widely and rapidly and because it has grave economic and clinical consequences in animals, FMD is one of the diseases livestock owners dread most.

Given the high incidence of the disease in animals, both in the past and in more recent outbreaks worldwide, its occurrence in man is rare, so experience of the human infection is limited. The incubation period in humans is 2-6 days. Symptoms have mostly been mild and self limiting, mainly uncomfortable tingling blisters on the hands but also fever, sore throat, and blisters on the feet, and in the mouth, including the tongue. Patients have usually recovered a week after the last blister formation.

There have been no laboratory confirmed human cases of FMD during this current animal outbreak in the United Kingdom, despite 15 suspected human cases having been reported since March. People can, however, spread the virus to animals because it can persist on contaminated clothing, footwear, and other materials for several weeks, and can harbor in human nasal passages for as long as 28 hours.

Note that FMD is not caused by the virus responsible for the human condition "Hand, Foot, and Mouth disease". The human illness is caused by either Coxsackie virus A16 or Enterovirus 71.

The foot-and-mouth virus is a non-enveloped ssRNA virus that is extremely stable in the environment. Viability may last up to a month in soil and on moist surfaces. Airborne transmission is possible over long distances. The virus is readily transmissible via fomites.

INSIDE:

Newborn Screening 2
State Comm Hotline 3
Rabies in Idaho 4

Foot-and-mouth disease affects cloven-hooved animals, including cattle, swine, sheep, goats, deer, and others (not horses). In animals, FMD is characterized by fever and blister-like lesions on the tongue and lips, in the mouth, on the teats, and between the hooves. Laboratory confirmation is required for diagnosis. Many affected animals recover, but the disease may cause severe losses in the production of meat and milk.

The U.S. has been FMD-free since 1929. FMD-free is a veterinary designation that carries powerful economic repercussions. The loss of the FMD-free designation would severely restrict export of animal products from any affected country; the economic impact would be great in an agricultural state such as Idaho. As of April 21, 2001, the United Kingdom is not allowed to trade any animal products with the rest of the world for at least three years. This timeline will remain a moving target until transmission ceases in the United Kingdom.

In May, the Idaho Department of Agriculture hosted a conference to include veterinarians and members of the "State Emergency Plan Working Group", which included members of the Bureau of Disaster Services; the Department of Environmental Quality; public health officials; Idaho State Police; Department of Finance; the Department of Fish and Game, and others. The working group met to develop a plan about how to respond, should a suspect or confirmed FMD case be reported in Idaho.

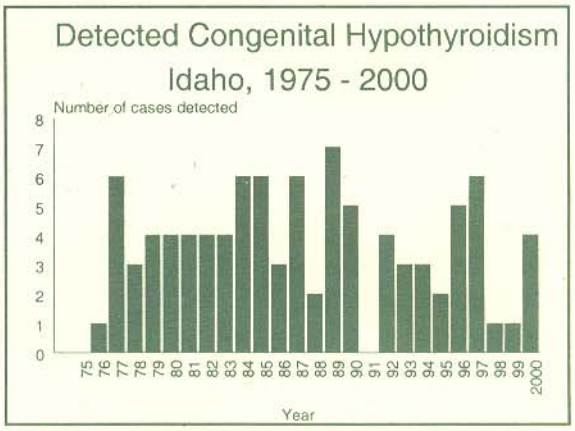
For additional information on FMD, call Kendal Eyre, DVM, Idaho Department of Agriculture, (208) 332-8540, or Leslie Tengelsen, PhD, DVM, Idaho Department of Health and Welfare, (208) 334-5939.

Screening Detects Conditions Affecting Newborns in Idaho

Congenital hypothyroidism is one of the most common preventable causes of mental retardation and is the most frequent condition detected in Idaho newborns by the Idaho Newborn Screening Program (INSP), with 111 cases detected since 1976 (see graph). The INSP also provides screening for phenyketonuria (PKU), maple syrup urine disease, galactosemia, and biotinidase deficiency.

Every infant born in Idaho is required to have a screening test before discharge from the hospital or birthing facility unless a religious exemption is requested. For infants born "out of hospital," the person responsible for registering the birth of the child is also responsible for assuring that the proper specimen is collected and submitted no later than the fifth day of life. If the first specimen is collected less than 48 hours after birth, a follow-up specimen is required.

The INSP contracts with the Oregon Public Health Laboratory to process the specimens and provide the submitter of record with the results. If the first test indicates a possible problem, the results are not considered final until tests are repeated. If re-testing is



necessary, the submitter will be contacted in a timely manner by the Oregon Public Health Laboratory. Once a true positive case is identified, medical consultants from Oregon Health Sciences University are available to provide consultation for the evaluation and management of the affected child.

The incidence of these conditions in the Northwest and the number of Idaho cases detected via newborn screening efforts is shown below.

Condition	Northwest Incidence	Idaho Cases
Congenital Hypothyroidism	1:4000	111 since 1976
PKU	1:11,000	70 since 1960
Galactosemia	1:60,000	22 since 1975
Biotinidase Deficiency	1:60,000	2 since 1986
Maple Syrup Urine Disease	1:150,000	0 since 1975

The Idaho Newborn Screening Program, located in the Idaho Department of Health, provides practitioner's manuals upon request, which cover the screened disorders in detail, and provide additional information about the program. Basic brochures geared toward parents of newborns are also available. Both can be obtained by contacting Christina Giso at the Idaho Newborn Screening Program at (208) 334-4927 or by e-mail at christinag@idhw.state.id.us.

NEW NUMBER FOR PUBLIC HEALTH EMERGENCIES !

You may need public health assistance after hours at times; such instances may include a case of meningococcal meningitis or tuberculosis requiring urgent evaluation and prophylaxis of contacts, a suspected foodborne disease outbreak, or a possible case of botulism. The most rapid way to get public health assistance after normal business hours is through the Idaho State Emergency Medical Systems Communications Center ("State Comm"), which provides information and communication services for the public, government agencies, and emergency responders statewide. State Comm is also the initial contact point for any hazardous materials spills in Idaho.

State public health officials participate in the State Comm system by carrying pagers for after-hours emergency public health calls. Please call State Comm if you need assistance, and ask that public health staff be paged.

State Comm Emergency Line

Greater Boise area:
1-208-846-7600

Outside the Boise area:
1-800-632-8000

This number is not for routine disease reporting. The Idaho Epidemiology Program maintains its own 1-800 number for this purpose, available 24 hours a day.

For routine 24-hour disease reporting:
1-800-632-5927

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RABIES IN IDAHO!

The State Public Health Laboratory diagnosed rabies in a Big Brown bat, the first week of May, 2001. This is the first rabid bat of 2001 reported from the greater Idaho Falls area.

Remember, exposure to a rabid bat does not require an obvious bite. Exposure to saliva or waking in the presence of a bat may constitute an exposure if it is unclear whether the bat actually caused a bite.

If there is any question about a bat exposure, feel free to call your local public health district or the State Epidemiology Program at (208) 334-5939.

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